Wisacwis
County Interface Database

WisacwisReplicator User Guide

Version 1.3.1
August 25, 2003

Contents

Overview

The WisacwisReplicator is a Java application that will replicate, or copy, data from a master Oracle database to a local Oracle Lite database.

The first time the WisacwisReplicator connects to the master database it will perform a complete load of the data; thereafter it will copy only the data that has changed since the last replication was performed. The initial load of data may take several hours depending on the amount of the data and the speed of the network connection. Only data that is specific to each county is selected from the master database for copying to the local database.

The WisacwisReplicator can run unattended and may be scheduled to run at pre-determined time each day. Alternatively, it may be run manually and has the option to perform a replication or a complete refresh (delete existing data and reload) on-demand.

There is a number of additional features built-in to the WisacwisReplicator that will seldom, if ever, be used by a county user. These features are useful for testing and debugging problems with the replication - they are documented here for completeness.

Network Connection

A network connection has to exist between the WisacwisReplicator and the master database on the DHFS network. The chosen method of connecting to DHFS utilizes Cisco's VPN client. This provides a secure and encrypted connection via the Internet. A minimum Internet connection speed of T1 is recommended.

Refer to the VPN client documentation for details of installation and usage of the VPN client.

You can choose to establish the VPN connection yourself or have WisacwisReplicator connect and disconnect automatically.

Running WisacwisReplicator Manually

The BAT file **WisacwisReplicator.bat** is the principle program used to run the replication client. There are several other BAT files available for convenience but all of them call this file with a variety of parameters.

Run **WisacwisReplicator.bat** from a DOS command line or double-click the file in Windows Explorer.

The default behavior is to establish a VPN connection; run the replication Java client, then disconnect the VPN connection once the replication is complete.

To bypass the VPN connect/disconnect, type "novpn" as the **first** parameter from the DOS command prompt:

```
C:\WisacwisReplicator\wisacwisreplicator novpn
```

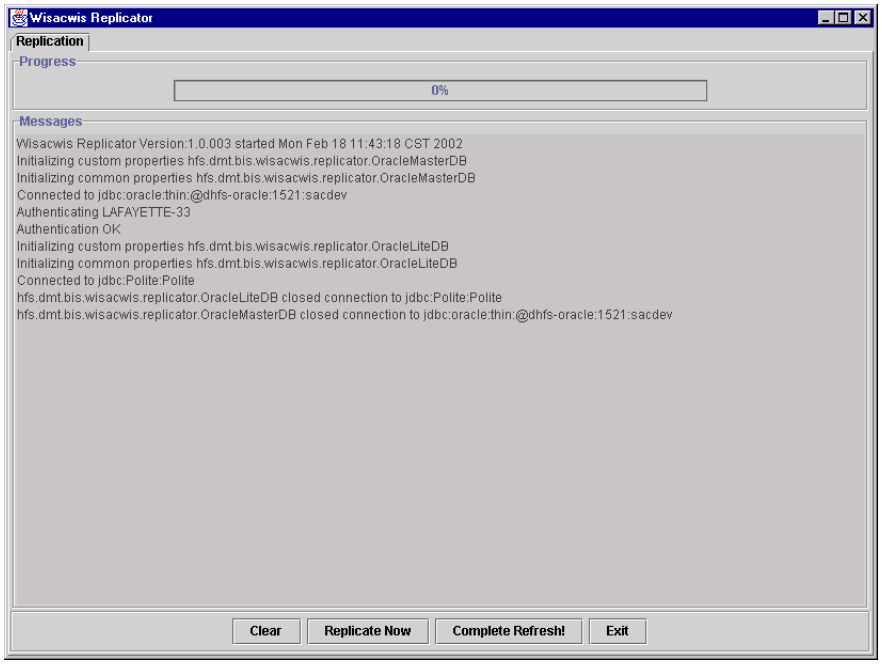
A DHFS network connection must have previously been established, otherwise the replication client will fail to connect to the master database. Upon exiting the replication client the network connection will remain intact and should be disconnected manually if required.

For online help, run the program with the **/?** switch and short usage information will be displayed.

When the replicator starts it looks at a property called REPL_SCHEDULE; this property determines the action that the replicator should perform upon starting. The default action is "**NOW**" which will automatically start the replication process. To override this default action use the /MANUAL switch.

```
C:\WisacwisReplicator>wisacwisreplicator /MANUAL
```

This will start the replicator in manual mode, waiting for user input, and the REPL_SCHEDULE property will be ignored.



There are four options available (the buttons at the bottom of the window) when running the replicator manually:

- Clear – Clears the message log panel
- Replicate Now – Starts the replication process
- Complete Refresh – Deletes all data from the local database and replicates the entire dataset.
- Exit – Closes the replicator.

Running WisacwisReplicator Unattended

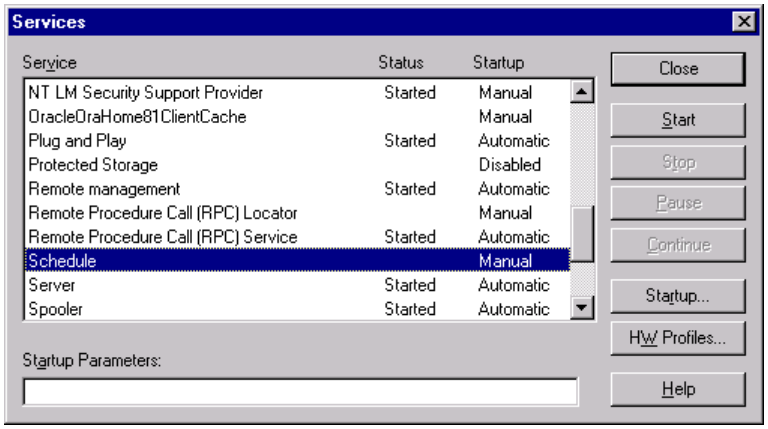
WisacwisReplicator may be scheduled to run on a pre-determined day and time using the Windows NT DOS command “AT”.

The NT service called “Schedule” must be running for the “AT” command to be activate.

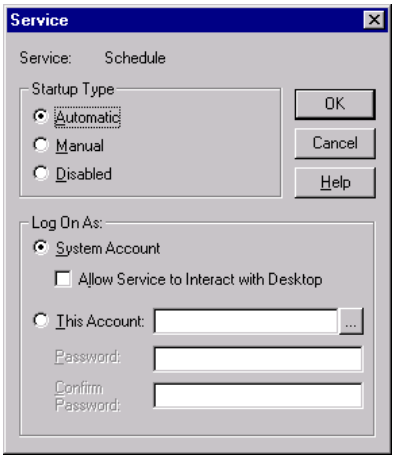
Verify the service is running:

C:\>**at**
The service has not been started.

If the service is not running, use Control Panel*Services to activate the service.



Click the “Start” button to start the service then click the “Startup…” button to edit the service properties and configure it to automatically start upon boot:



To run the replication client each day at 6:00 AM enter the following DOS command (as one continuous command):

```
at 06:00 /interactive /every:m,t,w,th,f,s,su c:\wisacwisreplicator\run.bat
WisacwisReplicatorVpn____REPLICATE.bat
```

The current status of scheduled jobs can be reviewed by entering the “at” command alone.

Tip: Running the program:

```
c:\wisacwisreplicator\Schedule.bat
```

will automatically schedule the previous AT command for you.

Note: This option should only be used if the WisacwisReplicator property `REPL_SCHEDULE=NOW` is set. Otherwise the replication client will start and the GUI will display but it will wait for user input to actually initiate the replication process.

Log files

The replication client creates a new log each time it is run and also archives the previous log to a history file.

The two log files are:

repl.log
history_repl.log

(history_repl.log is simply all the repl.log files appended together)

The log file contains status information that is recorded by the replication client. It may also contain debugging detail if the debug option is enabled.

Note: The history log will grow in size over time and should be deleted periodically if disk space is a consideration.

Extract from an example repl.log file:

```
c:\WisacwisReplicator;c:\WisacwisReplicator\classes12.zip;C:\Oracle\OraLite9i\MOBILE\CLASSES\OLITE40.JAR;C:\Oracle\ora81\jdbc
\lib\classes12.zip;
C:\WisacwisReplicator NOVPN /TEST
Wisacwis Replicator Wed Jan 30 14:14:00 CST 2002:Wisacwis Replicator Version:1.0.001 started Wed Jan 30 14:14:00 CST 2002
Wisacwis Replicator Wed Jan 30 14:14:00 CST 2002:Initializing hfs.dmt.bis.wisacwis.replicator.OracleLiteDB
Wisacwis Replicator Wed Jan 30 14:14:00 CST 2002:Connected to jdbc:Polite:POlite
Wisacwis Replicator Wed Jan 30 14:14:00 CST 2002:Initializing hfs.dmt.bis.wisacwis.replicator.OracleMasterDB
Wisacwis Replicator Wed Jan 30 14:14:01 CST 2002:Connected to jdbc:oracle:thin:@159.158.58.160:1521:repl
Wisacwis Replicator Wed Jan 30 14:14:01 CST 2002:

Hello from jdbc:Polite:POlite
The date and time is WEDNESDAY JANUARY   30 2002 14:14:01

Wisacwis Replicator Wed Jan 30 14:14:01 CST 2002:

Hello from jdbc:oracle:thin:@159.158.58.160:1521:repl
The date and time is WEDNESDAY JANUARY   30 2002 14:16:51

Wisacwis Replicator Wed Jan 30 14:14:01 CST 2002:hfs.dmt.bis.wisacwis.replicator.OracleLiteDB closed connection to
jdbc:Polite:POlite
Wisacwis Replicator Wed Jan 30 14:14:01 CST 2002:hfs.dmt.bis.wisacwis.replicator.OracleMasterDB closed connection to
jdbc:oracle:thin:@159.158.58.160:1521:repl
Wisacwis Replicator Wed Jan 30 14:14:01 CST 2002:Test complete
Wisacwis Replicator Wed Jan 30 14:14:18 CST 2002:Status:Closing Wisacwis Replicator!
```

WisacwisReplicator command line options

A number of options may be specified to control the action that the replication client performs.

Option	Action
No options specified – Default behavior	A VPN connection to the DHFS network will be established and the replication client will run. Upon closing the client, the VPN connection is disconnected.
novpn	The replication client will not establish a VPN connection. A connection to the DHFS network must exist already.
/?	Display usage information at the DOS command line.
/QUIET	Runs the replication without a GUI interface.
/TEST	Test database connections then exit the client. The database server date and time should be displayed in the log if the test was successful.
/RUN=X:\some\file\path\run_this.sql;	The SQL statements contained within the specified file will be executed on the **local database** (never on the master DHFS database). This can be used to run simple SQL SELECTs etc for informational purposes. The results from the SQL statements will be shown in the log file. The replication client automatically closes once the SQL has been run. This is normally combined with the **novpn** option, since no connection to the master Oracle database is required.
/DROP	The local database tables will be removed – all data is deleted. **USE WITH EXTREME CARE!**
/MANUAL	Start the replicator and wait for user input – ignoring the REPL_SCHEDULE property.
/PROGRESS	Ignores the REPL_PROGRESS property and always echoes progress in the GUI. **By default, the REPL_PROGRESS property is set to "N" – this improves the performance of the replication because the GUI is not being refreshed constantly.** It is recommended that this property only be enabled or overridden if absolutely necessary.

WisacwisReplicator properties file

The replication client can be configured using the WisacwisReplicator.properties file. This file contains county specific details and is normally sent to each county when they receive the replication client installation files.

Each property consists of a name-value pair:

```
PROPERTY_NAME=SOME_VALUE
```

Most of the properties are for DHFS use only and should never be changed unless specifically requested by DHFS technical support personnel.

Some options, however, determine how and when the replication client runs. These options are described in the following table.

Property	Description and Possible Values
REPL_SCHEDULE	Internal scheduler that determines when replication will occur. **NOW** – (Default) Start replication process immediately, upon completion the client window is closed. **NEVER** – Do not schedule. Enables client to start and wait for user input. **HH:MM** - Enter the time of day in HH:MM format when the replication should start. The replicator will 'sleep' until the specified time. Note: Leave the DOS and replicator windows open if using this option. Normally, this option is not required because the Windows NT scheduler is used.
REPL_RETRY	If the master Oracle database at DHFS is busy running the daily replication updates, the replication client will not be allowed to connect and transfer data. In this case, the client will wait and try to re-connect after the number of minutes specified. Value must be between 01 – 60. Default is 30 minutes.
REPL_PROGRESS	Determines if the progress bar and status messages are echoed in the GUI. **By default, the REPL_PROGRESS property is set to "N" – this improves the performance of the replication because the GUI is not being refreshed constantly.** Tip: The repl.log file can always be viewed if progress needs to be monitored.

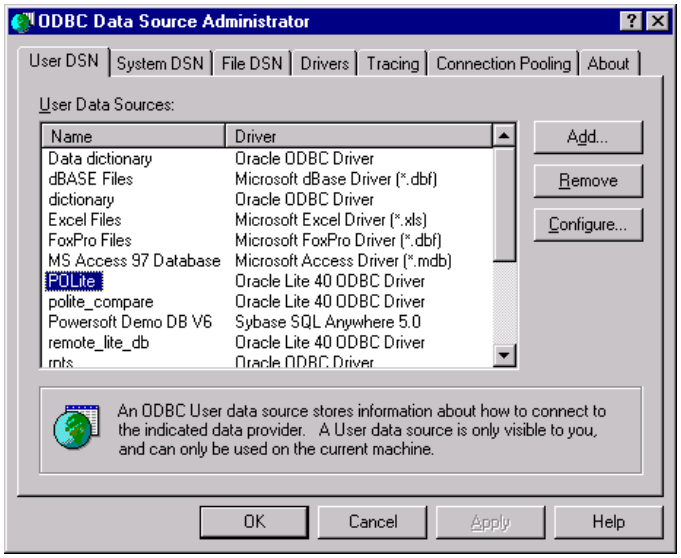
Description of supplied utility BAT files

The command line options discussed above have been packaged into a number of separate BAT files for convenience. These utility files simply call the WisacwisReplicator.bat file with the required options.

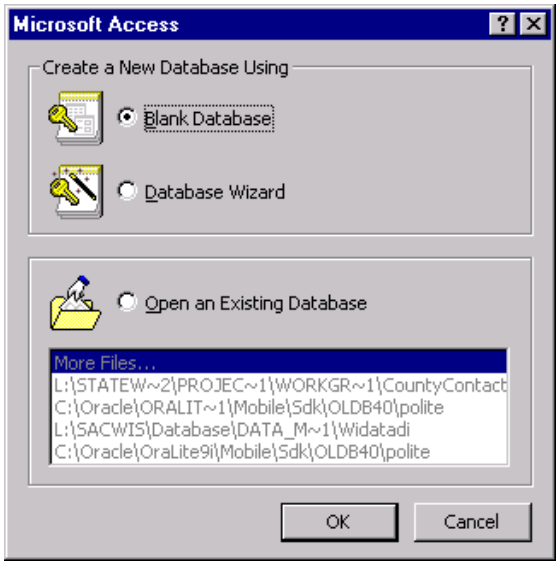
Utility BAT file	Description
WisacwisReplicatorNoVPN____DROP.bat	This will delete the local database – confirmation prompts are displayed to prevent accidental deletes.
WisacwisReplicatorNoVPN____TEST.bat	Test the database connection without automatic VPN connection.
WisacwisReplicatorNoVPN____MANUAL.bat	Runs the replicator and waits for user input without automatic VPN connection.
WisacwisReplicatorNoVPN____REPLICATE.bat	Run the replication client without automatic VPN connection.
WisacwisReplicatorNoVPN____RUN.bat	Run SQL statements directly from the command line. Edit this Bat file to include the required SQL statement and run it.
WisacwisReplicatorNoVPN____RUN_SQL.bat	Run SQL statements contained within a file. The bat file may be edited to change the location of the SQL file.
WisacwisReplicatorVPN____TEST.bat	Test the database connection – establishing a VPN connection automatically.
WisacwisReplicatorVPN____REPLICATE.bat	Run the replication client - establishing a VPN connection automatically.
WisacwisReplicatorVPN____MANUAL.bat	Runs the replicator and waits for user input - establishing a VPN connection automatically.
Miscellaneous BAT files	
Polite.bat	Runs the Oracle Lite command line interface, similar to SQLPLUS for the server.
Polite_DB_Recreate.bat	Physically removes and recreates the POLITE.ODB database file. Quick way to “reset” Oracle Lite.
Schedule.bat	Automatically schedules the replicator for 5:00 am each day. Only needs to run once.
Run.bat	This should be used with the Windows AT scheduler to correctly set the working directory of the actual program to be run. **See Schedule.bat for an example of how to use this file.**
Repl_location.bat	This is used by many of the BAT files to set the working directory – do not change any of the settings in this file unless instructed to by your Wisacwis Technical Contact.

Oracle Lite ODBC Interface

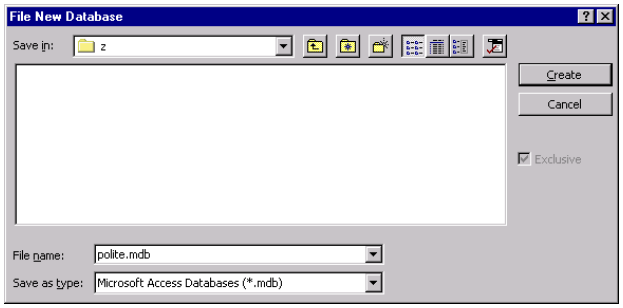
When Oracle Lite is installed, an ODBC datasource called “POlite” is automatically created. This data source can be used to view (or modify!) the data in the Oracle Lite database. Note: Installing Oracle Lite is the only way to get the ODBC driver; it is not available for separate installation.



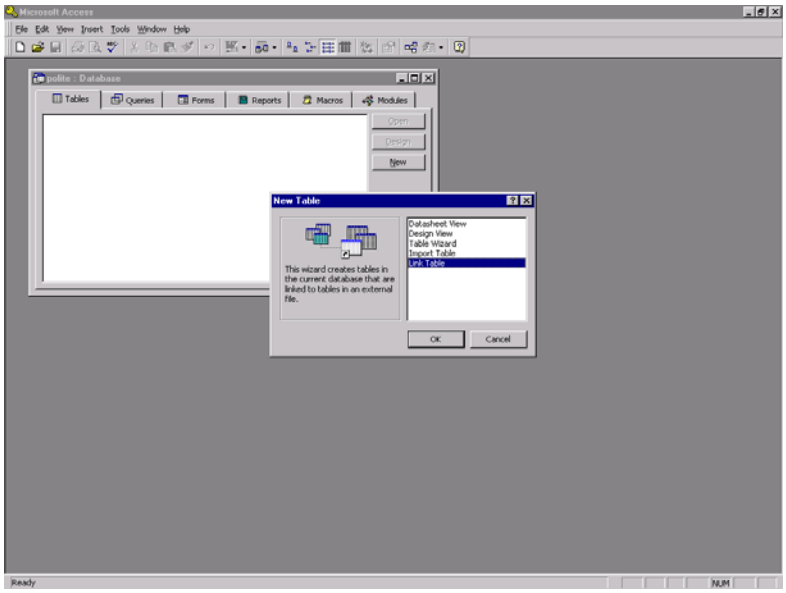
Viewing data in MS Access



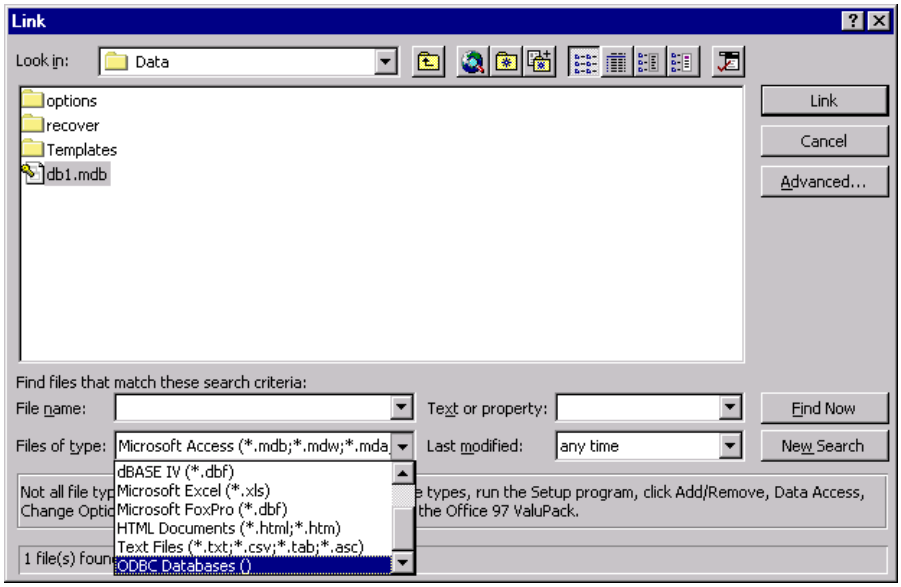
Create a new, blank MS Access database called polite.mdb.



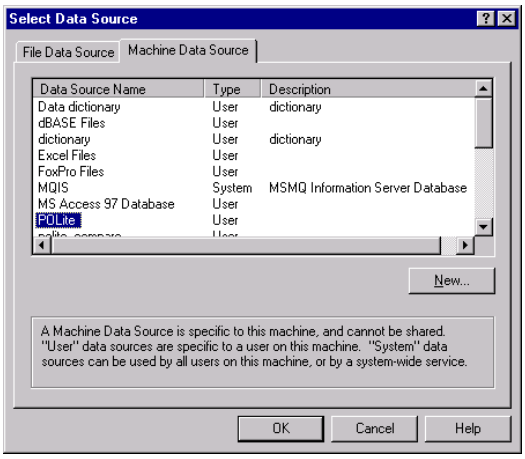
Click the “New” button on the Tables tab; select the “Link Table” option and click OK.

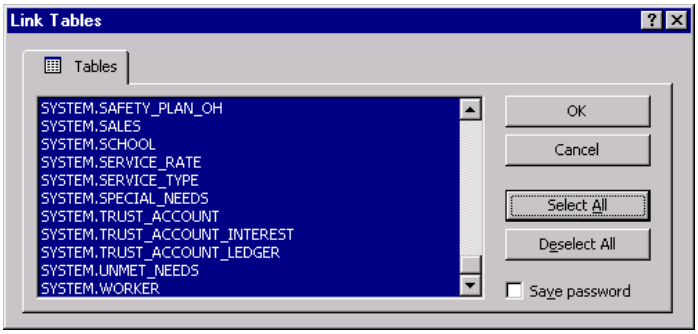


In the Link dialog, click the “Files of Type” drop-down list and select ODBC Databases.

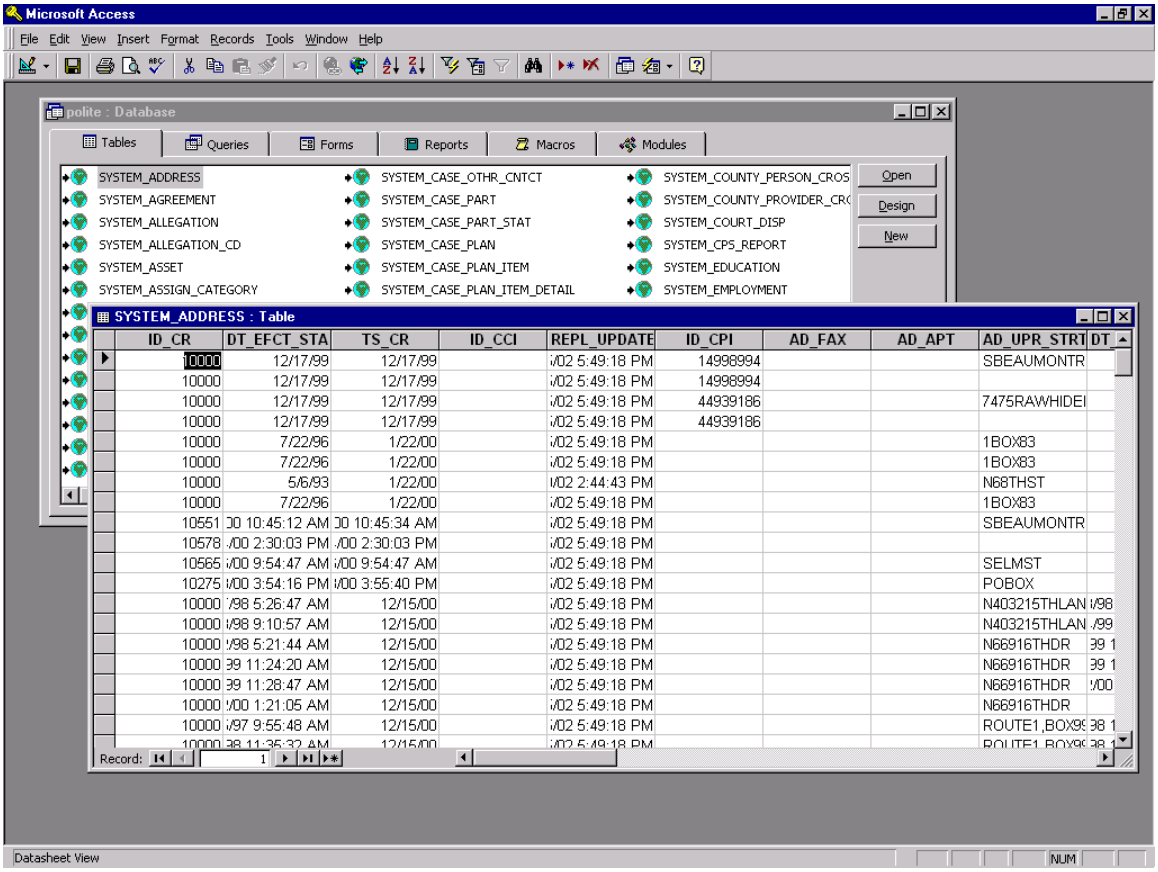


In the “Select Data Source” dialog select the POLite data source and click OK. In the “Link Tables” dialog click “Select All” then OK. The tables will be imported and displayed in the main MS Access. (Some warning dialogs may be displayed during the import – these can be ignored.)





Double click on a table to display its data.



Additional Functionality (Unsupported)

The WisacwisReplicator also contains additional functions that are not normally part of the daily replication process. These functions are only ever used for debugging and testing and are primarily intended for use by members of the Wisacwis State Technical team.

These features are provided AS-IS and are not supported. Refer to the internal State project documentation "W*isacwisReplicator Javadoc*" for additional information on these features.

Validator

The **Validator** will verify that the data that was replicated is complete. It will check each foreign key relationship for violations (ie Does a CASE refer to a person does that does not exist in the PERSON table?) The foreign key definitions are extracted from the Wisacwis Data Dictionary by running the "qryRelationshipFields" query and dumping the data to a TXT file in tab-delimited format. The validator reads this extract file and verifies each FK relationship.

To run the Validator, pass in the command line switch /VALIDATE or set the VALIDATE property to "Y". If the VALIDTE property is set then a validation will be performed after each replication.

```
#############################################################################
#Replication Validation
#############################################################################
VALIDATE=Y

#Name of relationships to validate !prefix=do not validate
VAL_RELS=ALL

#Name of file that contains FK relationships exported from Wisacwis Data Dictionary
VAL_FILE=qryRelationshipFields.txt

#Validation error row limit
VAL_ROWS=25

#Name of file that contains FK relationships exported from Wisacwis Data Dictionary
REPL_VALIDATOR=qryRelationshipFields.txt
```

Comparator

The **Comparator** will compare the data in two Oracle Lite databases. The main replication database (Polite.odb) and another. The comparator will verify that each row in the main one exists in the other. This can be used for regression testing between software releases.

To run the Comparator, pass in the command line switch /COMPARE. The WisacwisRepliator.properties file must also contain the following options and an ODBC datasource needs to be created that points to the second database. The ODBC Datasource Name (DSN) must correspond to that specified in the COMPARE_URL property (In this example it is called polite_compare.)

```
#############################################################################
#Compare local db to the one specified here
#############################################################################
COMPARE_URL=jdbc:Polite:Polite_compare
COMPARE_TABLE=ALL
COMPARE COLUMNS=KEY
```

Replicating into another DBMS (How-to Guide)

Overview

Oracle lite was selected for the main replication database because it's SQL syntax is the same as the central DHFS database; it is easy to install and practically requires zero administration. Unfortunately, Oracle Lite is not designed to be a high-powered, multi-user DBMS – that's what Oracle Server does! It is possible to connect a number of clients (users) to an Oracle Lite Db on a network drive but each user must have a local copy of Oracle Lite to gain access to the ODBC driver – The Oracle Lite ODBC driver cannot be installed alone.

Many IT departments already have a chosen DBMS and users are familiar with the reporting and data access tools that come with it. To facilitate replicating the Oracle Lite data into the chosen DBMS, the "DbmsSqlConverter" was developed.

This section is provided as an example of how to approach replicating data from Oracle Lite into a county DBMS. The SQL converter and batch files discussed here are provided AS-IS, and with very limited support. They should be used as a starting point for county technical staff to implement replication into their own database management systems.

DbmsSqlConverter

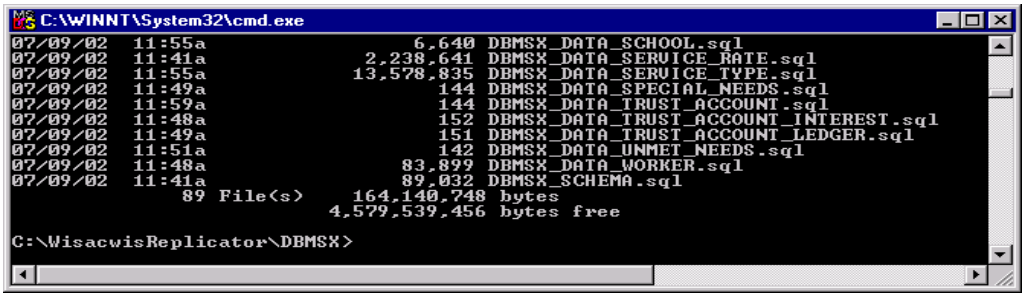
The DbmsSqlConverter will convert SQL from Oracle syntax to your chosen DBMS syntax. When the Oracle Lite replication is running and the DbmsSqlConverter has been enabled, all SQL statements that are generated are logged to text files. The text files are then read and the SQL is converted and written to an output text file. This file can then be imported into your target DBMS. The use of text files may be a "brute force" approach but it is simple and will work across platforms and DBMSs; the alternative would be to use ODBC or some other protocol which would be harder to implement across platforms.

Currently, Microsoft SQL Server is the only target DBMS that the converter replicates into, but it should be relatively easy to modify the configuration properties for other DBMSs. All of the examples shown here assume MS SQL Server.

There are several batch (BAT) files for running different stages of the converter. Normally, these batch files are not used individually but are combined in the MS_REPL.BAT that performs an end-to-end replication:

- Replicate from State Oracle server to local Oracle Lite
- Convert SQL from Oracle to target DBMS syntax.
- Import converted SQL into MS SQL Server

Enabling the converter during replication will cause the Oracle Lite SQL to be written into the \DBMSX folder. One file is used for the data for each table being replicated as well as a file for the schema. The original, Oracle Lite files are called "DBMSX_DATA_*table_name*" and "DBMSX_SCHEMA.sql". The converted files are called X_DBMSX_DATA_*table_name*" and "X_DBMSX_SCHEMA.sql".



DbmsSqlConverter.properties

The DbmsSQLConverter.properties file contains the parameters to enable and convert SQL statements.

```
#Turn SQL converter on or off - Y/N/JDBC
DBMSX_ENABLED=Y
```

DBMS specific commands that should be included at the beginning of the converted text file can be specified using the DBMS_CMD*x* parameter:

```
###############################################################################
#Commands to run in dbms before running any SQLs
###############################################################################

DBMSX_CMD1=SET NOCOUNT ON
```

Specify as many commands as are needed by incrementing the command count suffix (DBMSX_CMD1, DBMSX_CMD2, etc).

Some SQL statements that the Oracle Lite replicator generates are executed on the DHFS Oracle server rather than Oracle Lite, these are not needed. Words or partial words in the DBMSX_IGNORE section that are contained within a SQL will cause the entire SQL to be ignored and not written to the target output file.

```
###############################################################################
#Ignore SQLs that contain the following
###############################################################################

DBMSX_IGNORE1=REPLICATE.REPL_LOG
DBMSX_IGNORE2=REPL_DELETE
```

The final section of the properties file contains the rules for converting an Oracle SQL component to the target DBMS syntax. Enter as many conversion rules as required – remembering to number each set of FIND and REPLACE strings correctly. The first property (DBMSX_FINDS) determines the last find/replace properties that should be read; the rules need not be numbered contiguously. The rules are applied in the order that they appear.

```
#############################################################################
#Find and replace the following strings in SQLs
#############################################################################

#Last number of find/replace pairs that follow
DBMSX_FINDS=22

DBMSX_FIND2=' DOUBLE '
DBMSX_REPLACE2=' NUMERIC '

DBMSX_FIND3=' TIMESTAMP '
DBMSX_REPLACE3=' DATETIME '

DBMSX_FIND4=' VARCHAR2 '
DBMSX_REPLACE4=' VARCHAR '
…

DBMSX_FIND22=''DD-MM-YYYY HH24:MI:SS''
DBMSX_REPLACE22=103
```

The first rule replaces the word DOUBLE (Oracle number data type) including a leading and trailing space with the word NUMERIC (MS SQL number data type). The single quotes here are <u>not</u> part of the search string but are used to explicitly delimit white space around the word. To include a single quote in the search criteria, use two single quotes together.

The following rules convert the Oracle function:

```
TO_DATE('2002-01-23 16:45:21  ', 'YYYY-MM-DD HH24:MI:SS')
```

To the MS SQL function:

```
CONVERT(DATETIME, '2002-01-23 16:45:21  ', 121)
```

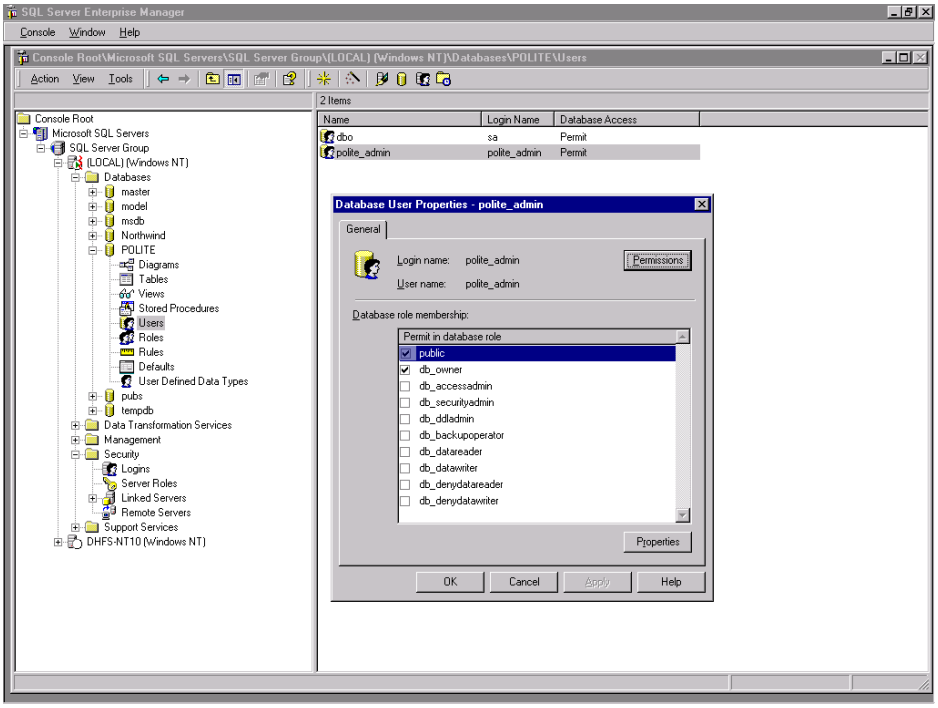
```
DBMSX_FIND5=TO_DATE(
DBMSX_REPLACE5=CONVERT(DATETIME,

DBMSX_FIND6=''YYYY-MM-DD HH24:MI:SS  ''
DBMSX_REPLACE6=121
```

Note:Rule 6 uses doubled single quotes because the inner quotes are part of the search string.

MS SQL Server Replication Setup

In order to replicate into MS SQL Server a number of preliminary tasks must be performed. It is assumed that an MS SQL Server DBA is available and is familiar with database administration tasks.

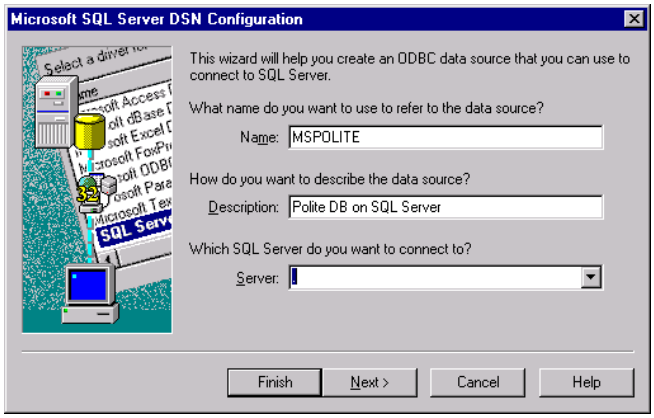
- Create a new MS SQL Server Database called “POLITE”.
- Add a new user called “polite_admin” and grant the user “db_owner” rights to POLITE.
- Add additional users and rights as needed.



Modify the ms_location.bat with your SQL server connection information.

```
rem uid is MS SQL Server login id
rem pwd is MS SQL Server login id
rem srv is MS SQL Server host name
rem db  is MS SQL Server database name

set uid=polite_admin
set pwd=password
set srv=MSSQL01
set db=POLITE
```

On the Oracle Lite server, create an ODBC **SYSTEM** data source called “MSPOLITE” that connects to the POLITE database on MS SQL Server.



MS SQL Server Replication Batch Files

Use the command line option “/help” for specific usage of these batch files.

Batch File	Description
MS_repl.bat	This is will perform a complete, “end-to-end” replication. It basically calls the bat files below. Schedule this every day.
MS_Import.bat	Imports the converted X_DBMS_* files into MS SQL Server.
MS_location.bat	MS SQL Server connection settings. The other BATs call this one.
MS_drop_tables.bat	Drops the MS SQL Server POLITE tables
MS_trunc_tables.bat	Truncates the MS SQL Server POLITE tables
DbmsSqlConverter.bat	Converts the Oracle SQL to target DBMS SQL syntax.
WisacwisReplicatorNoVPN____DBMSXROWS.bat	Compares row counts between Oracle Lite tables and those in MS SQL Server using the JDBC-ODBC bridge to connect to MS SQL Server.

Replicating directly into a DBMS using JDBC

The process discussed above has several advantages:

- Only requires a VPN connection to DHFS during the Oracle Lite replication.
- A "split tunneled" VPN connection is not needed.
- Creates plain text files that contain the SQL to be run on the target DBMS; these can be processed further by a county-developed conversion routine, if desired.

If the target DBMS is JDBC-compliant then the DbmsSqlConverter can be configured to convert the Oracle SQL and send it to the target DBMS via JDBC in real time.

Replicating directly into the county DBMS requires:

- A "split" VPN connection is needed because both the DHFS and county networks have to be visible. The DbmsSqlConverter has to be able to "see" the DHFS Oracle server and the county database server at the same time. The configuration of this type of connection and its support is limited – contact your Wisacwis technical representative for further information.

- A JDBC driver for the county DBMS has to be licensed and installed on the "replication" server. (Note: Most DBMSs now provide a JDBC driver but some do not, in which case, a 3rd-party driver has to be purchased and installed.) Optionally – but not recommended – the Sun Microsystem's JDBC-ODBC bridge driver can be used if the DBMS has an ODBC driver but no JDBC driver. Sun provide this bridge driver "AS-IS" and do not guarantee it will be work or be reliable.

To enable replication into a county DBMS in real-time set the DBMSX_ENABLED property to JDBC then configure the DBMSX_DRIVER and DBMSX_URL properties. The driver property should contain the class name of the JDBC driver and the url property the location of the target DBMS – This information is driver-specific, refer to your JDBC driver documentation for details.

```
#Turn SQL converter on or off - Y/N/JDBC
DBMSX_ENABLED=JDBC

###############################################################################
#Local database to replicate into
###############################################################################

#Weblogic native JDBC driver - You have to license and pay for this.
#DBMSX_DRIVER=weblogic.jdbc.mssqlserver4.Driver

#Sun JDBC:ODBC bridge driver - FREE, but may not work well with all ODBC drivers.
DBMSX_DRIVER=sun.jdbc.odbc.JdbcOdbcDriver

DBMSX_ID=polite_admin
DBMSX_AUTH=polite_admin
DBMSX_SCHEMA=dbo
DBMSX_CLASS=hfs.dmt.bis.wisacwis.replicator.MsSqlDB

# "MSPOLITE" is an ODBC "SYSTEM" datasource to the target MS SQL Server database.
DBMSX_URL=jdbc:odbc:MSPOLITE

# Example Weblogic driver URL - change the IP address to your MS SQL server IP.
#DBMSX_URL=jdbc:weblogic:mssqlserver4:POLITE@255.255.255.255
```

Set the DBMSX_ID, DBMSX_AUTH and DBMSX_SCHEMA to the user id, password and database schema for the county DBMS.

The default configuration shown above uses the Sun JDBC-ODBC bridge. If using the bridge then an ODBC SYSTEM data source has to exist – in this example it is called MSPOLITE (this is the one that was setup for the DBMSX SQL file-based conversion above.)

To run the replication, simply run the normal Oracle Lite replicator. The MS_***** BAT files are no longer needed:

WisacwisReplicatorVPN____REPLICATE.bat

To drop the tables (from Oracle Lite and county DBMS) and completely refresh all data:

WisacwisReplicatorVPN____REFRESH.bat

WiSACWIS Tables that are replicated (as of 9/3/03)

ADDRESS, AGREEMENT, ALLEGATION, ALLEGATION_CD, APPROVAL APPROVAL_HISTORY ASSESSMENT ASSET, ASSIGNMENT, ASSIGN_CATEGORY, BANK, BCKGCHCK_RESULT, BED_RESERVATION, BENEFIT, CAN_PART, CAN_TEXT CAN_TEXT_EVENT, CASE, CASE_CLOSURE, CASE_EVAL, CASE_OTHR_CNTCT, CASE_PART, CASE_PART_STAT, CASE_PLAN, CASE_PLAN_ITEM, CASE_PLAN_ITEM_DETAIL, CATEGORY_TYPE, CHECKS, CODE_DESC, CODE_DESC_FNCL, CODE_DESC_LRG, CODE_DESC_STATIC, CODE_GRP_DESC, COUNTY_CASE_CROSS_REF, COUNTY_PERSON_CROSS_REF, COUNTY_PROVIDER_CROSS_REF, COURT_DISP, CPS_REPORT,	DOC_NARRATIVE EDUCATION, EMPLOYMENT, EPISODE, FAMILY_ASSESSMENT, FAMILY_ASSESSMENT_DOMAINS, HOME_INQUIRY, IA_NARRATIVE, IA_PRIMARY, IA_SCNDRY, INTAKE_PART, INVESTIGATION, INVESTIGATION_CNTC, JOB_CLASS, KIDS_TRAN LEA_HISTORY, LEGAL_ACTION, LEGAL_DOC LICENSE, LICENSE_ACTION, LINK_PART, LOCATION, MEDICAID_CERT MEDICAID_ELIGIBILITY, MEDICAL_PROFILE, MENTAL_HEALTH_PROFILE, NEEDS_AND_STRENGTHS, PAN_TEXT_EVENT, PARENT_AGENCY PAYMENT, PAYMENT_ADJUST, PAYMENT_ELIG_DAYS, PAYMENT_REIMBURSEMENT, PAY_CLAIM_HISTORY,	PERSON, PERSON_AKA, PERSON_MERGE PLACEMENT_REQUEST, PRMNCY_PLAN, PRMNCY_PLAN_IL_DETAIL, PROVIDER_ORG, PROVIDER_PART, PROVIDER_PART_STAT, PROVIDER_SERVICE, PROV_REPMNT_MTHD, PRVD_SRVC_LCNS, PRVD_SRVC_RATE, RATE_SETTING REFERRAL, REPL_DELETE, RISK_ASSESSMENT, SAFETY_ASSESSMENT, SAFETY_PLAN, SAFETY_PLAN_ITEM_DETAIL, SAFETY_PLAN_OH, SCHOOL, SERVICE_RATE, SERVICE_TYPE, SPECIAL_NEEDS, STREET_TALK TICKLER TRUST_ACCOUNT, TRUST_ACCOUNT_INTEREST, TRUST_ACCOUNT_LEDGER, UNMET_NEEDS, WORKER